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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,590	02/12/2004	Shinichi Mihara	12577/29	3479
23838 7590 08/23/2007 KENYON & KENYON LLP 1500 K STREET N.W. SUITE 700 WASHINGTON, DC 20005			EXAMINER PRITCHETT, JOSHUA L	
			ART UNIT 2872	PAPER NUMBER
			MAIL DATE 08/23/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/776,590

Applicant(s)

MIHARA, SHINICHI

Examiner

Joshua L. Pritchett

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-27 is/are pending in the application.
- 4a) Of the above claim(s) 5,6 and 9-19 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 is/are allowed.
- 6) ☒ Claim(s) 1,2,4,8 and 20-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This action is in response to Amendment filed July 16, 2007. Claims 1-6 and 8-25 were amended, claim 7 was cancelled and claims 26 and 27 were added as requested by the applicant.

#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, 8 and 20-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Utgawa (JP 590113421) in view of Kato (US 5,231,534).

Regarding claims 1 and 22, Utgawa teaches a first optical element (P1) chemical substance (2) which enables to change light transmittance (page 5) by chemical change according to electric quantity, a second optical element (1) having a reflective surface (page 5) and an optical system having an optical component which is arranged so as to sandwich the chemical substance by one surface of the first optical element and one of the surfaces of the second optical element (Fig. 10). Utgawa lacks reference to one of the surfaces of the prism having a refractive power. Kato teaches a rectangular prism with one surface having a refractive

power (col. 4 lines 24-26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Utagawa invention include the refractive power in the prism as taught by Kato for the purpose of deflecting the light passing through the prism.

Regarding claim 2, Utagawa teaches the claimed transmittance ratio (Fig. 4A). The Utagawa reference shows the transmittance being substantially constant at 440nm, 520nm and 600 nm so the ratio would be approximately 1.0 which fits within the claimed ranges.

Regarding claim 4, Utagawa teaches a lens group at the utmost image side of the optical system is fixed when magnification is change (Fig. 14). Utagawa makes no mention of moving the lens group and the drawings do not show any movement therefore the examiner interprets the Utagawa invention as having a stationary lens at the utmost image side.

Regarding claims 8 and 23, Utagawa teaches the first optical element is the prism, the chemical substance is arranged so as to be contacted with one of the flat surface of the prism and the second optical element is arranged so that the flat surface of the second optical element is contacted with the chemical substance from an opposite side of the prism and one of the optical surfaces of the second optical element is constituted as a reflecting surface for bending the optical path (Fig. 10).

Regarding claim 20, Utagawa teaches the invention as claimed but lacks reference to the claimed refractive index. It is extremely well known in the art to make optical elements out of silicon which has a refractive index of 1.68 or greater. Official Notice is taken. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the prism made of silicon as is known in the art for the purpose of using a material with known

Art Unit: 2872

optical properties that is readily available to achieve desired and precise results in a cost effective manner.

Regarding claim 21, Utigawa teaches means for controlling electrically an electric signal in relation with a picture image obtained from a state of the optical system and the imaging element and transmittance of the medium respectively (page 5).

Regarding claims 24 and 26, Utigawa teaches the second optical element is a parallel plane board (Fig. 10).

Regarding claims 25 and 27, Utigawa teaches the radius of curvature for the first and second optical element surfaces touching the chemical substance are parallel (Fig. 10). Parallel surfaces would render the claimed ratio to be zero which is within the claimed range.

### ***Allowable Subject Matter***

Claim 3 is allowed.

The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to teach or suggest the claimed relationship between the F value and the pixel pitch as claimed.

### ***Response to Arguments***

Applicant's arguments, see Amendment, filed July 16, 2007, with respect to the rejection(s) of claim(s) 1 under Utagawa have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration of the newly amended claim, a new ground(s) of rejection is made in view of Kato. Applicant amended the claim language to overcome the prior art. The Kato reference was added to teach the newly claimed limitations.

Applicant's arguments, see Amendment, filed July 16, 2007, with respect to claim 2 have been fully considered and are persuasive. The objection of claim 2 has been withdrawn. Applicant amended the claim to overcome the objection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2872

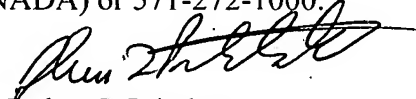
however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L. Pritchett whose telephone number is 571-272-2318.

The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Joshua L Pritchett  
Examiner  
Art Unit 2872